

PRODUCED QUARTERLY BY THE MESAU CONSORTIUM; A MEPI INITIATIVE

Volume 2, Issue 3 • June 2013

Medical education in Uganda: MESAU Consortium as a Learning Collaborative

By MESAU Secretariat

The Medical Education Partnership Initiative (MEPI) funded by the US government has facilitated medical education in Uganda with the unprecedented opportunity to reach new heights in the effort to address health care needs of the nation's population. The funding goes to support activities of the Medical Education for Equitable Services to All Ugandans (MESAU) consortium. The latter comprises Ugandan Universities of Busitema, Gulu, Kampala International, Makerere and Mbarara, and their partners; the US universities namely Johns Hopkins and Case Western Reserve Universities.

INSIDE

What Next in Health Sciences Education for Uganda?

MEPI-CVD linked award Building Institutional Capacity in Training and Research

**MESAU Support for Health Research Capacity in Uganda
The Importance of Publishing Peer-Reviewed Papers**

**Integrating Leadership and Management in the COBERS curriculum:
experiences from Mbarara University**

Busitema University set to Open Gates to the first cohort of medical students

**Capacity Building of Academic Staff (faculty):
An Essential Component of MESAU activities**

In all issues of MESAU News there are voices whose origins can be traced in the DNA of MESAU and showcasing our progress. This is only the tip of the iceberg. The existence of the consortium, MESAU, is itself part of the tip of the iceberg.

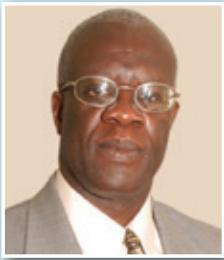
MESAU DNA is comprised of a commitment to improve the health and wellbeing of Uganda's citizenry. This is to be achieved through in-country collaboration between universities engaged in training medical students on the one hand and on the other between them and stakeholders including government ministries, the communities country-wide, and the non-profit and for profit private sector. At the core of this consortium is the passionate leadership at various levels that wishes to achieve genuine

and lasting positive change in the standards of health service delivery in the nation. There is a commitment to ensure that the wild fire ignited by MEPI will burn, way beyond the life of MEPI funding and for generations to come. This is not a small undertaking and requires the undivided attention, careful planning, committing appropriate resources and engagement of all stakeholders. There may be distractions along the way but these must be resisted and overcome in a true spirit of partnership keeping our eyes focused on the end game... improving the health of our people who expect no less than affordable, high quality, easily accessible services. Part of our mission is to learn how to maintain a consortium approach to health professional education of all sorts in our environment.



Site visit 2013 at Gulu University: Site visits provide one of many platforms for learning together (south-south) and from each other

WORD FROM THE DIRECTOR



Once again you are welcome to MESAU News which presents to you the progress being made in medical education in Uganda. In August 2013 more than 40 African

medical schools and Colleges of Medicine or of Health Sciences and their international partners from North America and elsewhere will gather in Kampala, Uganda's capital city to discuss how universities can contribute to building Africa's national health systems through medical education. It gives us opportunity to reflect on how we can (re)build Uganda's health system and be able to serve the nations' population effectively and efficiently.

With MEPI funding five Ugandan Universities are working together to uplift the standards of medical education so as to provide better support to Uganda's health system and improve peoples' health. Universities must be engines for creative and innovative thinking aimed at addressing the pressing challenges in our society. MESAU presents an unprecedented opportunity to each of our institutions to reach new heights regarding the quality, quantity and relevance of the health professionals that we train. MESAU is committed to building transformative leaders, developing leadership potential among students so that they become effective leaders in our health system. We are developing a strong tradition of questioning and not being satisfied with the status quo. In order to be able to break new ground, have change and do things differently we must be willing to take calculated risks and try different ways of doing business. Even though there is usually a long time lag between investments and returns in education, MESAU's impact should be documented through both quantitative and qualitative evaluations (measurements).

In this issue we present some highlights of what the MESAU consortium is like, what the students think and their involvement in communities, what graduates of the recent past have experienced for example during internship; developing student leadership potential, what the faculty are doing in research and scholarly writing, and the roles of the US partners. We cherish our involvement in communities, and engagement innovative learning.

Never have I been more proud of our universities, faculty and students regarding the progress being made in the field of health professional education in Uganda and in the other countries where MEPI has a presence. I look forward to spreading this enthusiasm and impact beyond MEPI schools and across the entire continent.

Prof. Nelson K. Sewankambo

Medical education in Uganda:

Learning as we go is deeply embedded in MESAU's DNA. We appreciate, however, that for a consortium to close deficiencies in local innovation is not easy. It is not simply a matter of building the consortium and having occasional interactive events to share achievements and challenges with stakeholders but a matter requiring daily attention and nurturing with provision of the essential ingredients necessary for a healthy growth. There is need for continuous competence building among partners. Cooperation plays an important role in upgrading training, innovation and learning, and in harnessing opportunities to realize the establishment of minimum educational standards.

Universities globally compete against each other. Whereas competition still exists, the consortium gives us a common voice and approach as we address many pressing national health care needs.

Our trainees are the future leaders and practitioners in Uganda and must be trained to achieve both of these objectives. Where the training experience takes place may have a strong influence on where and how the graduates will function as health professionals. They need a very conducive training environment including community support for them to endure the challenges that they may confront. The good news is that the students enjoy and value community placement rotations. Enhancing community involvement by MESAU institutions continues to take a considerable part of our resources and thinking.

In the recent past medical education has never been as interesting as it is today with support from the American people and government. The Medical Education Partnership Initiative (MEPI) has brought a lease of fresh air and hope where there was little hope for transformative health professional education.

What Next in Health Sciences Education for Uganda?

By Emilio Ovuga, Gulu University

In responding to Uganda's relatively large unmet need for health care, MEPI-MESAU's main goal has been to promote access to equitable health services to all Ugandans during the life of the project. Noble as the focus of MESAU is, we may fall prey to relying on numbers, as is usually the case in project implementation and miss the real issues that afflict the Ugandan health care system; namely, professional ethics, the quality of health care and the quality of outcomes of health care interventions. Given the ever-escalating population growth in Uganda that far outstrips the production of health care providers and that does not in any way influence the willingness of medical doctors to work in poor underserved rural areas, it will probably not be feasible to achieve the goal of promoting access to health care to all Ugandans at any one time for the next 100 years. Given this dismal outlook, one wonders whether promoting equal

access to all Ugandans without due attention to the quality of health care is ethically and morally justifiable.

As we think of numbers as an outcome measure of MESAU's successes, we need to consider the quality of health care delivered to all Ugandans; poor or rich and rural or urban. On the face of it, there is anecdotal evidence that access to health care for communities around health facilities that MESAU institutions use for student training, intermittently improves every time students are posted to those sites. Whether this translates into quality of health care in terms of reduced morbidity and mortality rates, improved quality of life of communities or improved productivity in the communities served is unclear. As there is pressure to start new universities, to increase admissions to our universities whether public or private; and as we think of new and innovative ways of health sciences education in Uganda

What Next in Health Sciences Education for Uganda?

including E-learning methods, we need to be aware of the risk of compromising the quality of professional attitudes, knowledge, skills, competence, and ethical standards that our graduates. Facilities are far inadequate; health workforce in our universities is low; salaries and motivational levels are low; and conditions of work are wanting in quality. With mounting pressure to do research and publish or perish, our senior doctors and professors probably devote less time to student training and mentorship using the centuries old apprenticeship model. Under these circumstances, it appears reasonable that we should consider innovative ways to improve health care quality and responsiveness in Uganda as integral components of health sciences education. There are no easy solutions and I can only pose suggestions for us to consider in the next cycle of funding should such an opportunity arise.

Task shifting has been suggested, and this is worth considering so that less risky duties and responsibilities could be taken up by lower level health care providers, leaving senior professionals and specialists to carry out more complicated tasks including specialist care, research, training and mentorship. Research to define how best task shifting can be implemented is warranted. The culture of medical practice driven by the best interests of clients is crucial but unfortunately seems lacking; our medical training institutions must do something about how senior colleagues ought to train and mentor health sciences students and junior doctors. What the public appears to look for in our graduates is the culture of medical practitioners valuing the quality of intervention outcomes in clinical practice that entails clinicians spending a good amount of their time beside the patient than elsewhere. Given the large numbers of patients seen at our health facilities daily, it is important to question the quality of health care delivered to those patients. This is the very essence of the existence of a functional health care system. Peer support, apprenticeship, and continuing professional self-education are perhaps key areas worth considering in future funding opportunities.

MEPI-CVD linked award Building Institutional Capacity in Training and Research

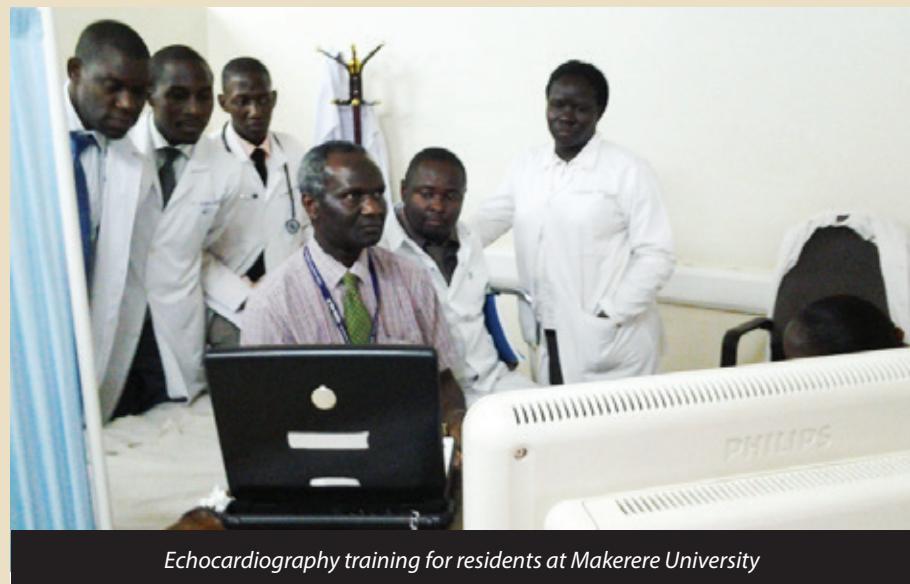
By Dr. Isaac Ssinabulya, Rhoda Namubiru
and Dr. Yvonne Nabunnya

Cardiovascular disease (CVD) is one of the leading causes of morbidity and mortality globally, however in Uganda there has been limited research regarding CVD. Through the MEPI-CVD program there is increasing capacity for CVD research and training among medical students, residents and faculty.

Research projects with CVD

focus for residents are noted to have increased over the past three years, from less than two projects in a year to more than 6 projects per year. This is greatly as a result of MEPI-CVD linked award since the majority of these projects have been carried out by MEPI-CVD trainees. To date the program has had 21 trainees (18 residents and 3 PhD students), of which 9 residents have completed their studies.

to pg4



Echocardiography training for residents at Makerere University



Medical students at Mbarara University carrying out an ECG at the Hospital



MEPI-CVD linked award Building Institutional Capacity in Training and Research

The trainees' projects have generated information in these areas: Endomyocardial fibrosis (EMF), subclinical atherosclerosis in HIV, cardiac dysfunction in HIV, Atrial fibrillation, cardiovascular disease and chronic renal disease, secondary hypertension, air pollution and endothelial dysfunction. Most of this information forms a basis for further research as well as improvement in patient care and training.

Through the MEPI-CVD program, two Echocardiography machines and three Electrocardiography (ECG) machine were obtained and this has greatly complimented patient care, training and research.

Students and staff have increased access to ECGs and their skills in echocardiography are improving over time. Among the trainees that have completed, three directly utilized the equipment during their research projects and five of the continuing students' projects will utilize the equipment. The program also encourages students and staff to utilize the equipments for research even if they are not directly sponsored by the MEPI-CVD program.

This infrastructural development is aimed at attracting more people to the field of cardiology and ultimately many will pursue a lifelong career in CVD prevention and management.

MESAU Support for Health Research Capacity in Uganda The Importance of Publishing Peer- Reviewed Papers

Nelson Sewankambo MD and Bob Bollinger MD, MPH

"Give a man a fish and you feed him for a day;

teach a man to fish and you feed him for a lifetime." -Lao Tzu

The overall objective of the Ugandan MESAU Consortium is "to catalyse capacity and performance enhancements in medical education and relevant research with a focus on excellent, nationwide service delivery." Improving the capacity and quality of health research in Ugandan educational institutions is also important to provide the evidence needed for the Health Ministry to design, implement and evaluate programmes and policies that address the highest health priorities of the country and community. Independent expert review of research findings through submission of research papers to scientific journals is a critical process required to optimize the validity and impact of health research programmes. The time and treasure invested in research is not of value to the community, unless the results and conclusions are validated and shared with and used to benefit the community and other stakeholders. As clinicians and researchers, we have a responsibility to share and publicise the results of our research. Therefore, faculty and students in Uganda must develop a number of key research competencies, including learning how to prepare and submit scientific papers.

A review (conducted by Ziadah Nankinga and others) of 837 research publications from Makerere University College of Health Sciences from 2005-2009, demonstrated that the majority of publications were HIV/AIDS-related. While HIV-AIDS is certainly a very high research priority for Uganda, the analysis identified the need to broaden the scope of health research and publications to other health areas, as well as the need to

engage and facilitate the contribution of a wider range of Makerere faculty and students in research publications. In addition, the MESAU program provides an opportunity to strengthening the research capacity of all the Ugandan partner institutions.

Johns Hopkins University (JHU), one of the strategic MESAU partners, has been asked to provide technical support to a number of priority areas of the programme, including expansion of research capacity. Since the initiation of the MESAU programme, JHU has provided support for training and capacity building of ethics committees, research administration, the PhD programmes and the COBERS programme. Over the past 6 months, JHU has begun to focus more broadly on support of training in scientific writing.

In March 2013, the first MESAU Scientific Writing Workshop was held in Kampala. The Workshop had two primary objectives. One objective was to assist the participants with the design, drafting, editing and submission of a peer-reviewed research paper. For most of the participants, including students and junior faculty, this would be their first research paper. A second objective was to establish partnerships between JHU and Ugandan senior faculty to provide joint mentorship of the Workshop participants in paper writing. Faculty mentors were chosen for their content expertise and matched with Workshop participants based on the topic of their proposed paper. JHU faculty mentors included, Dr. Bob Bollinger (Workshop Director), Dr. Yuka Manabe, Dr. Steve Harvey, Dr. Julie Denison, Dr. Larissa Jennings and Dr. Eli Leontsini. Ugandan faculty mentors included Dr. Simon Kasasa,

MESAU Support for Health Research Capacity in Uganda

The Importance of Publishing Peer-Reviewed Papers

Dr. Elly Okello, Dr. Gorette Nalwadda, Dr. Pauline Byakika, Dr. Paul Alele, Dr. Fred Nuwaha, Dr. Noeline Nakasujja, Dr. Fred Kironde, Dr. Emilio Ovuga, Dr. David Meya, Dr. Zari Rukundo, Dr. Rhoda Wanyenze and Dr. Joan Kalyango.

The selection process for participation in this first MESAU writing workshop was intentionally rigorous. A total of 46 applications were received, which included details about their proposed paper, including study hypothesis and data analysis. The proposals were reviewed and ranked by 3 independent faculty. Twenty-eight proposals were invited to submit revisions and additional details. A total of twenty-three applicants from 4 MESAU partner institutions were invited to participate in the Workshop, which took place from 27 Feb – 1 March. The programme included a series of structured group discussions, as well as one-on-one sessions with faculty mentors. Following the workshop, the participants, writing mentors and co-authors of the papers worked together to meet deadlines for specific deliverables that were set and tracked, as shown on the attached progress heat-map.

Of the 23 participants in the workshop, 18 were able to define a final research question, complete an outline for the paper and complete a first manuscript draft. The remaining 5 Workshop participants, were able to recognize and discuss important limitations in their study design, data collection and analyses, that have helped them to revise and improve their ongoing research studies and methodologies. As shown in the attached table, 9 (50%) of the manuscripts have already been revised, finalized and submitted for peer-review. In addition, one has already been accepted for publication and one has been provisionally accepted, pending requested editorial revisions. The list of submitted manuscripts reflects a broad range of important relevant health research priorities for Uganda.

The first MESAU Writing Workshop has been a great success. In addition, to expectations of many more completed and submitted manuscripts within the next few months, the experience has energized the students and faculty to continue their efforts to publish

scientific papers. Additional writing workshops are planned, which will leverage the experience and capacity of MESAU faculty and participants in this first workshop.

MESAU Writing Workshop Final Manuscripts Submitted for Peer-review

- 1. Joseph KB Matovu**, Julie Denison, Joseph Ssekasanvu, Emilio Ovuga, Rhoda Wanyenze, David Serwadda. Trends in HIV counseling and testing uptake among married couples in Rakai, Uganda. BMC Public Health 2012 (In Press)
- 2. Mukunya David**, Kizito Samuel, Orach Tonny, Ndagire Regina, Tumwakire Emily, Larissa Jennings, Rukundo Godfrey, Mupere Ezekiel, Kiguli Sarah. Rural residence and Limited Caretakers' Knowledge of Integrated Management of Childhood Illnesses is Associated with Poor Nutritional Status in Under-five Year-old Children in Northern Uganda: A Community-Based Cross-Sectional Survey.
- 3. Allen Kabagengyi**, Larissa Jennings Dr., Alice Reid Dr., Gorette Nalwadda Dr., James Ntozi Prof. and Lynn Atuyambe. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda.
- 4. Sam Ononge**, Charles Karamagi, Julius Wandabwa, Florence Mirembe, Godfrey Rukundo, Clemensia Nakabiito, Larissa Jennings. Predictors of Unknown HIV Serostatus at Time of Labor and Delivery in Kampala, Uganda: Implications for Prevention of Mother-to-Child-Transmission (PMTCT)
- 5. Kiguli Sarah**, Mbuuke Roy, Baingana Rhona, Kijjambu Stephen, Maling Samuel, Waako Paul, Ovuga Emilio, Obua Celestino, Kaawa-Mafigiri David, Nshaho Jonathan, Kiguli-Malwadde Elsie, Bollinger Robert, Sewankambo Nelson. A consortium approach to competency-based undergraduate medical education in Uganda: process, opportunities and challenges.
- 6. Jane Nakibuuka**, Wilson B Nyakoojo, Alice Namale, Edward Ddumba, Elli Leontsini, Fred Nuwaha. Echocardiography and carotid doppler ultrasound improves differential diagnosis and management of ischemic stroke: A cross sectional study.
- 7. Kayima J**, Wanyenze R, Nuwaha F, Katamba A, Elli L. Hypertension awareness, treatment and control in Africa: A Systematic Review.
- 8. Tuhebwe Doreen**, Tumushabe Elly, Leontsini, Elli, Wanyenze, R. Pneumonia in children under five in Uganda: Symptom recognition and actions taken by caretakers.
- 9. Allen Kabagengyi**, Larissa Jennings, Alice Reid, Gorette Nalwadda, James Ntozi and Lynn Atuyambe. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda

MESAU Support for Health Research Capacity in Uganda

The Importance of Publishing Peer-Reviewed Papers

MESAU Scientific Writing Workshop Participants Progress Heat Map 18 July 2013

Institution	Research Question	Outline	Initial Draft	COMPLETE Draft Shared with Co-Authors	Edits Received From Co-Authors	Second Draft, Cover Letter, Signature Pages Shared with Co-Authors	Edits and Signed Signature Pages Received from Co-Authors	Manuscript Submitted to Journal	Manuscript Decision	Acceptance Date
KIU	1-Mar	1-Mar	1-Mar	15-Mar	1-Apr	15-Apr	1-May	1-Jun	TBN	TBN
KIU										
KIU										
MakCHS								16-Jun-13		
MakCHS										
MakCHS								5-Jun-13		
MakCHS									19-Apr-13	
MakCHS				20-Mar-13						
MakCHS								29-May-13		
MakCHS								21-Mar-13	Revise	25-Jun-13
KIU			3-Jun-13							
MakCHS								25-Jun-13		
MakCHS								2-Apr-13		
MakCHS										
KIU										
Gulu										
MacCHS				17-Mar-13				16-Apr-13	Revise	
MacCHS				19-Mar-13						
KIU										
MakCHS										
MakCHS			15-Mar-13			17-Apr-13		22-Jun-13		
MacCHS				24-Apr-13						
MakCHS			29-Mar-13							

Optimising Institutional Collaborative Initiatives for Medical Education in Uganda: Reflections on MESAU Consortium Progress

By David Kaawa-Mafigiri and Florence Ayebare

Medical education in Uganda is undergoing a major transformational change. The innovative approach of forming a consortium of our publicly funded institutions (Makerere University, Mbarara University of Science and Technology, Busitema University, Gulu University) and one privately funded institution (Kampala International University) to enhance training of health workers in Uganda culminates into what is today known as Medical Education for Equitable Services for All Ugandans (MESAU). This collaborative initiative has been viewed by many as an ambitious innovation but one that has undeniable influence on the institutions that are part of this massive endeavour. The intricacies of medical education in Africa have been discussed widely, with Africa still falling short on the number of health professionals needed to serve

its people. As we approach the fourth year of the programmatic award period, we reflect on how far we have come since MESAU's inception. In this issue of MESAU News, we share some perspectives from the longitudinal study:

'Mapping the evolution and landscape of Medical Education for Equitable services for all Ugandans (MESAU)'.

This anthropological study which documents experiences and perspectives of the MESAU partner institutions was an innovation borne out of several discussions with the MESAU Principal Investigator and other participants, who sought to document the evolutionary process of such a novel approach to institutional collaboration in medical education. Undoubtedly, a

medical education consortium of this nature, looking to improve health outcomes of Ugandans, would be a monumental challenge in the face of the unique organizational cultural contexts of the institutions involved in this partnership. One of the major questions asked was;

'How could the successes and lessons learned be captured and translated into knowledge that could be shared widely and could possibly inform similar public health initiatives?'

It was therefore agreed that the consortium's progress be viewed through an anthropological lens, where shared experiences and perspectives of stakeholders would be documented over the 5 year award period. Using anthropological techniques of data collection, the study has engaged with participants

Optimising Institutional Collaborative Initiatives for Medical Education in Uganda:

through in-depth interviews, records review and participant observation. Spanning across diverse institutions whose differences in age, resources, teaching capacity and size may have hindered the progress of such a partnership, overall, we note progression that has been stimulated by collaboration and shared commitment of institutions.

Preliminary findings suggest that MESAU represents a pursuit that is closely aligned with the professional values and visceral instincts of health workers. A pursuit that has seen an enthusiasm among beneficiaries growing to unprecedented levels from young medical trainees learning in new and different ways, whilst working in local communities during their community based education, research and services (COBERS) training, to the experiences of mentorship that have enriched teaching and complemented learning. In some cases, students have been asking their medical schools for more opportunities to serve in resource poor communities!

MESAU is now being characterised as an initiative that supports bold, intellectually rigorous health professional education and research. Beneficiaries of research support under MESAU are appreciative of these capacity building opportunities. In their own words, '**MESAU has been able to harness our value as young researchers'**.

The international influence of the Northern partners particularly Johns Hopkins University has provided a new drive of enthusiasm in particularly 'younger' institutions, facilitating them to embrace new ways of doing business, specifically, with e-learning initiatives.

Visibility of the 'younger' partner institutions has increased through the opportunity that MESAU provides for stronger links with health care training and service delivery policy makers. MESAU provides this platform through enabling stronger, higher quality contact between policy and practice. When one considers the challenges that new institutions may

face in establishing themselves, the platform provided by MESAU begins to show how advantageous the partnership has been to the younger partners.

As a consortium, MESAU has been able to marshal support and recognition of its strength from important policy makers particularly the Ministries of Education and Health which play important roles in shaping the destiny of health workers in Uganda. This interaction with policy makers has shown what genuine political will means for public health initiatives. Consortium partners are mindful of what the acceptability and implementation of MESAU's objectives will mean for the future of medical education training in Uganda.

As MESAU continues to make positive contributions, there is an increasing awareness that the success of medical education in Uganda will consequently depend on partnerships of this nature not only between institutions, but also, nations.

Integrating Leadership and Management in the COBERS curriculum: experiences from Mbarara University

*Ndaruhutse Ruzaaza Gad,
Arubaku Wilfred, Edith Wakida,
Samuel Maling*

Community Based Education (CBE), involves shifting training from the classroom to an interactive problem-solving approach based in the community and is guided by priority prevailing health problems recognised in the curriculum. CBE is used to teach management of priority health problems within the community. It emphasizes interaction, sharing experiences and co-learning.

At Mbarara University of Science and Technology (MUST), emphasis is taken to shift the mindset of students (see diagram below) to become leaders who achieve results by mobilising communities to take charge of their own health.

Shift perspective from to ...
individual heroics	collaborative actions
despair and cynicism	hope and possibility
blaming others for problems	taking responsibility for challenges
scattered, disconnected activities	purposeful, interconnected actions
self-absorption	generosity and concern for the common good

To contribute to the alleviation of health disparities using an educational model, MUST integrated the Leadership Development Program (LDP) into all the undergraduate curricula including COBERS in 2009. The LDP course employs a multidisciplinary approach to understanding and addressing health care challenges in community settings practically. It trains students in communities and rural health units

under conditions similar to those in which they will eventually work. At the end of the community placement, students describe their experiences through weekly group presentations and assignments.

There are four major activities undertaken under MUST COBERS:

- 1) One week pre-placement orientation course

to pg 8

Integrating Leadership and Management in the COBERS curriculum: experiences from Mbarara University

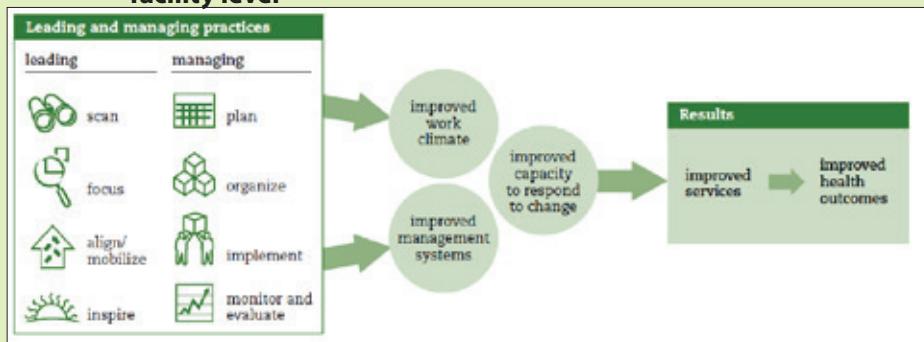
One week prior to community placement, students undertake an orientation course on campus where they are introduced to leadership and management in health and the tools required in identifying the main health challenges within their area of influence. The students also familiarise themselves with tools required to focus on priority areas for intervention, acquire knowledge and skills to undertake action planning, techniques and strategies for inspiring and appreciate that populations can be mobilised to address their own health care challenges. A cross cutting aspect of the course is orientation to the principles and components of primary health care.

Leading and managing for results Model as illustrated below is used during the LDP:

The MUST LDP has adopted the Leading and Managing for results Model as

From Managers Who lead, A handbook for improving Health services Cambridge, MA:

2) Activities at the health facility level



During the community-based activities phase, student teams share with each other and with the host health facility personnel what they learn throughout the process of implementing their leadership projects. The course is assessed by both MUST Faculty supervisors

and site tutors. On finalising the community based activities, students present group reports which are assessed. At the health facility the students undertake health talks, attend facility meetings, participate in immunization, counseling and clerking patients. Students' participation in health facility activities reduces on the work load while patient turn-over increases.

3) Activities within the host communities

Within the host communities, students identify both primary and secondary challenges. Primary challenges include illnesses identified in the community such as malaria, tuberculosis, HIV/AIDS and leprosy, as well as existing inequity, unfairness and client dissatisfaction. Secondary challenges (also called contributory challenges) can be inadequate health resources, inefficient health delivery services or poor management skills, which cause or contribute to the primary problems. Students also analyze health systems' challenges and design and implement cost effective interventions.

4) Students Projects

The students' projects entail working with the communities to improve health and health care through community participation. Students implement leadership projects with the host communities. Commonly



Mbarara University of Science and Technology (MUST) medical students working in a group during their leadership and management training

at University. Research questions are usually feasible, interesting, novel, ethical and relevant, since they are identified from community diagnosis.

Experiences Learnt

Through COBERS, students have gained skills in report writing, communication within and across sectors, as well as working in teams. The students enable the health system to function in new ways by unearthing the hidden structural and management challenges. MUST has built an innovative symbiotic education platform. Learning is undertaken using team based learning, group project, group discussions and presentations. The educational process in COBERS is participatory and interactive featuring role modeling, experiential as well as reflective processes.

COBERS training has proved to be essential in developing critical thinking and analytical skills; competencies the students are supposed to acquire. It has been possible to include some aspects of operational research into COBERS.

Contextually, Mbarara University of Science and Technology (MUST), in line with its founding philosophy has learnt how the COBERS curriculum facilitates the interaction between the local communities, University faculty and students, to make them more directed towards the prevailing and emerging needs within Uganda.

implemented leadership projects include water and sanitation, personal hygiene, detection of risk factors to cardiovascular disease, HIV/AIDS, Child health and Malaria control. They disseminate their results to the host communities and write group reports for presentation

So..... What Is MESAU-MEPI? : A Students' Perspective

By Brenda Kharono (MakCHS), Persis Nabyonga (MUST)

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn”

Alvin Toffler.

Many students in the various medical schools in Uganda have heard of the MESAU-MEPI consortium but some may not fully understand its core values and its importance in their lives as health workers.

So what is MESAU-MEPI?

Before we begin making collaborations with medical schools outside Uganda, what about beginning with our own? Wouldn't it foster great team work, not only amongst the medical schools but also in the health delivery system in the country?!

The MESAU Consortium is a country-wide partnership of Busitema University, Gulu University, Kampala International University, Makerere University College of Health Sciences and Mbarara University of Science and Technology in Uganda with John Hopkins University and Case Western Reserve University to catalyze capacity and performance enhancements in medical education and relevant research with a focus on excellent, nationwide health service delivery.

MESAU-MEPI provides various academic opportunities to Ugandan medical students with the aim of producing better health workers. The basic outcome of producing quality health workers is the provision of the best possible health care to every Ugandan.

The consortium is supporting many students' research projects and has encouraged the incorporation of the COBERS program. COBERS (Community Based Education, Research and Service) is an enlightening experience, which exposes students to the challenges faced by health workers in rural communities, the attitudes of rural folk towards health workers and modern

medicine as well as the naivety of many Ugandans regarding simple disease preventive measures and home remedies. It has enabled students to live and work with rural communities so as to identify health problems and find relevant, sustainable solutions.

The COBERS placements have not only been an academic platform, but have also exposed the students to responsibility sharing and team work which as a medical professional, are a great asset in making a good leader. The fact that the students are assessed as a team, and not as individuals, consolidates the need for the much sought teamwork and taking up responsibility for their different decisions for the challenges they face while staying in these communities.

The use of e-learning has been widely supported in order to improve access to medical education. Grand round webinars (web seminars), Skype calls and other communication media are being used by students in the different institutions to share knowledge and ideas. Many times, we have had grand round webinars amongst all the MESAU institutions, but have never stopped to imagine how they come about.

And the hype about undergraduate research?!! The answer is here. We are killing two birds with one stone. Not only have students been provided research support they have also had the opportunity to have research training. Topics handled in the research training include; Scientific writing (Components of a good Project proposal), Methodology, Ethical issues in research, Revising proposals, Proposal presentation, Obtaining Institutional Review Board (IRB) approval, Manuscript writing). All interested students are always welcome for the sessions. This same knowledge is

also needed when these students enroll for postgraduate school where research knowledge and skills are mandatory.

Many a time we underestimate the value of a mentor, but we can't deny that research opportunities have been bonding grounds for many mentor-mentee relationships and for others; it has been the start of great mentorship. We are able to acquire knowledge in the fields that transcends classroom study. On presenting to the different IRBs many students' skills in communication, independent thinking, creativity & problem solving are enhanced. Through undergraduate research, we enhance our professional & academic credentials to support applications for scholarships, awards, career employment & graduate schools

MESAU-MEPI's vision to use country-wide institutional collaboration to foster innovative medical education and research founded on strong sustainable institutional systems will increase the number and retention of high quality committed health workers capable of addressing Uganda's health priorities. This starts with us shifting from scattered, disconnected actions and advance to purposeful, interconnected actions towards one common goal of improvements in health care delivery.

As students, there is no doubt that we are the future of the health system in the country and it is upon us to lead improvements in health care in Uganda.

Imagine a situation where most of the medicines given to Ugandans resulted from research done in our very own laboratories, by our local health workers, researched amongst the population that would be beneficiaries! How much easier would it be to nurture our own generation of young researchers, to attract the brilliant minds that live in the diaspora, to create a whole new dimension of medical education and practice in Uganda!

The Makerere University College of Health Sciences Research and Writers Club joins the Fight against Cardiovascular Disease

**By Dave Dhara Ashok MBChB IV
and Mathew Kagwisagye, MBChB V**

The Research and Writers Club and MEPI CVD linked project held a joint one day public awareness campaign from 9.00 am to 4.00pm on the 2nd March 2013 at the Constitutional Square, Kampala city centre. The campaign was a student-driven initiative that was aimed at raising awareness and risk assessment among the public about cardiovascular disease. It was also an opportunity for professionalism, research, mentorship learning, and community involvement by the students of the College. The day saw the involvement of doctors and medical students from years one to five. Fifty enthusiastic students of all years of study were trained and prepped to actively participate in the study under the stewardship of Dr.Isaac Ssinabulya (MEPI-CVD Coordinator).

Preparations for this day started way back in November 2012 with the drafting of the activity work plan, then planning for venue, logistics, human resource and approval from the metropolitan police to use the venue. The campaign was targeting the general public, so mobilization was done through posters that were put in taxis and around the city as well as radio adverts that were run in both English and Luganda. This innovativeness in publicity saw a turn up of about 700 clients that overwhelmed the expectations of the students limiting the breaks students actually took. This however did not deter the hard work put forth by these strong men and women who worked tirelessly from morning to evening.

Once again the values the club holds so dear- commitment, innovativeness,

hard work and teamwork came into play to make this a success. The success of this event further strengthened the bond between the Research and Writers Club and MEPI-CVD linked project and more opportunities are envisaged to come from this relationship. The club

leadership urges the student body of Makerere University College of Health Sciences to join the club and participate actively and discover opportunities that can influence personal development as a student or individual.

Note: The authors are General Secretary (Dave Dhara Ashok) and President (Kagwisagye Mathew) of the Makerere University Research and Writers Club



Many residents of Kampala and neighbouring districts turned up to take advantage of the free services at the Constitution Square



A student drawing blood from one of the many people that turned up for the free services

Busitema University set to Open Gates to the first cohort of medical students

By Paul Waako

Following a light at the end of a tunnel is one fair expression of the journey to the opening of a Medical School at Busitema University. The government proposed that a medical school for Busitema University be established at Mbale through a parliamentary resolution. This resolution also proposed that the infrastructure at the School of Clinical Officers and School of Hygiene be used to kick-start the process. Busitema University started preparations for the establishment of the medical school way back in 2007 with the establishment of the planning committee. The committee recommended that the new medical school should start with 2 programs namely; Bachelor of Medicine and Bachelor of Surgery Degree program (MBChB) and the Bachelor of Nursing Science (BNS)Degree program. The two programs were submitted to the National Council for Higher Education for accreditation.

The process of accreditation could not proceed however, due to the change in government policy over conversion of Allied Health professional training institutions into University training institutions. This policy change left Busitema University with no option, but to start a medical school from scratch, a situation which would require resources not anticipated by the University in the near future.

The strength of partnerships

In 2011 came the MEPI-MESAU consortium; through which the two proposed training programmes under-went revision to competence based curricula. Through the consortium meetings and training the planning committee also got a deeper insight into contemporary approaches to health professional training. Members of the MESAU

Consortium later on played a big role in the advocacy for establishment of the faculty of health sciences.

Extensive discussions between the Busitema Faculty of Health Sciences Planning committee and the Ministry of Health culminated into signing of a Memorandum of Understanding between Busitema University and Mbale Regional Referral Hospital (A public facility under the Ministry of Health). In this MoU, Mbale Regional Referral Hospital put at the disposal of the University, any free space in the hospital for training. The hospital provided a building to be used as administration block, lecture room and laboratory. There seemed to be space for all training functions except the anatomy Laboratory. The hospital had provided an old mental health ward for this purpose. This building was dilapidated and needed renovation. Thanks to the MEPI consortium this building has been renovated to provide 140 square meters of space to be used for anatomy preparatory room, offices and dissection room.

Another thrust came from Kissito Health Care Inc; a United States-based Non-Government Organisation working to improve livelihoods of people in Uganda.

Kissito has signed a Memorandum of Understanding with the University and pledged to be a partner in the establishment and development of the medical school at Mbale. It has contributed laboratory equipment, an e-learning suite, 16,000 textbooks, a morgue suite for the anatomy laboratory, a hostel for students and pledged 20 Private Scholarship positions each year for students coming from rural locations awarded upon committing to return to their communities for service.

The proposed medical school has also signed an MoU with The AIDS Support Organisation (TASO). Through this partnership the institutions pledge to work together and also share training resources.

The good news is that the Ministry of Education and Sports has provided a budget 2013/2014 for the faculty of health sciences and the University management has proposed that the school opens to new students this September. The Faculty of health Sciences intends to take on 40 students for the Bachelor of Medicine and Bachelor of Surgery. The Nursing students will follow later. Congratulations to partners and all Ugandans.



The Anatomy building at Mbale Regional Referral Hospital renovated with MEPI-MESAU funding

Transitioning Grant Payment to Payment Management System

By Harriet Nambooze

On August 17, 2012, NIH put out an announcement which required foreign grantees to use the centralized grants payment and cash management system in order to draw down funds. With help from the NIH Grants Management Specialist (GMS), we immediately moved to ensure that our registrations with Data University Numbering System (DUNS), System for Award Management (SAM), Commercial And Government Entity (CAGE) Code were valid. With my experience in establishing the Makerere University Faculty of Medicine registration with Grants.gov system, I was confident that I would successfully set up the PMS system.

I was, however, in for a surprise because as soon as I received confirmation from the Finance, Grants and Contracts offices that the account was operational I immediately went into the SAM.Gov system to update our account status. I was greeted by a surprise! The first thing that hit me was that although we were still able to submit grants applications using the pre-existing DUNS number, this number did not exist in Dun & Bradstreet (D&B) system! I immediately got in touch with our NIH GMS to explore options of correcting the anomaly. There were projects already funded by the CDC under one of the Makerere University College of Health Sciences (MakCHS) schools. The school was already using PMS. Ideally the situation that would work without disturbing the flow of funds for the CDC project was to create a sub account under the PMS so as to receive NIH grants. However, we needed to have an account that would cater for all the schools of the College and not just one of them. This marked

the beginning of the long journey that necessitated us to change our DUNS, CAGE code and SAMS.Gov accounts.

Prior to the NIH announcement, disbursements for our MESAU-MEPI grant were made by advance payments. The migration to the PMS was therefore meant to draw funds on an as-needed basis – specifically, no more than 3 days before the funds are needed. PMS is intended to minimize the time elapsing between the transfer of funds from the Federal government and disbursement by a grantee. The system requires that all Federal funds deposited by PMS in a grantee's bank account as an unrestricted advance payment should be fully disbursed (checks written, signed, and issued to the payees) by the close of business the next workday after receipt of the funds.

Transitioning from an advance based payment system to the PMS seemed straight forward. To my dismay, however, this transition took me close to three months which were characterized by moments of frustrations and happiness. In the long run, it was a very educative process and I now feel confident about the process and can guide others that may need to go through this similar process.

I have learnt that one cannot know it all. Guidance and support from peers, supervisors and federal websites is indispensable. In addition, keeping in touch with the NIH GMS was of great help in navigating through the system. Just when you think you have clearly articulated your problem to the 1st level (Tier 1) agent you are informed that the agent is not authorized to handle the particular issue and has escalated it to 2nd level (Tier 2) queue for associated service. The time difference between US and Uganda makes it complicated

to make contacts during normal working hours. I had to check SAM.Gov account status on a daily basis. In case there was an issue that was not resolved I would send a communication (ticket) through the SAM.Gov system. I would send a ticket at least once a day if there was an issue to be resolved. The majority of problems are caused by the systems complexities; I therefore had to keep in regular contact with the US responsible entity.

As the prime grantee institution in MESAU we have taken the responsibility to provide guidance to ensure that the other MESAU partner institutions adhere to the processes that go with the PMS. Under the leadership of the MakCHS Grants and Contracts Office, we have drawn up standard operating procedures and monthly reporting templates. We have trained Administrators, Grants Management Officers and faculty on establishment of procedures to support the system.

MESAU finally satisfied the NIH requirements and has already been able to draw down and receive funds using the newly established PMS. This would not have been possible without the expert help and guidance from NIH.

Resources:

- http://grants.nih.gov/grants/policy/nihgps_2012/nihgps_ch6.htm#payment
- <http://fedgov.dnb.com/webform>
- http://www.dlis.dla.mil/cage_welcome.asp
- <https://www.sam.gov>
- www.fsd.gov

Pursuing a PhD in Low Resource Setting: Experiences on Mentorship and Supervision

By Elialia Okello

Mentorship experience is a complicated jigsaw; complicated not only by limited numbers of individuals to pick from, but also limited in scope and expertise available. Mentorship is not an optional extra activity for mentors or mentees; rather it is an essential part of career development. Well-mentored students are more likely to have productive, distinguished, and ethical careers that reflect credit on their mentors and enrich the discipline.

Mentoring can only take place where mentors are available and prepared, and have the required knowledge of their fields but also skills, motivation and the passion to mentor and see others grow. Mentees should also be aware and willing to seek mentorship and guidance from their mentors. In this article, we have thoughts and experiences on this process by two PhD students at Makerere University College of Health Sciences.

"Mentorship and supervision in resource limited settings, a treatise." Mentorship and supervision is a jigsaw puzzle. In resource-limited settings, the jigsaw puzzle is more complex because of the phenomenon of "small sample size" or in other words, "limited by what is limited". The optimum is to have a progression from pedagogy through andragogy to heutagogy, however this is not always the case because of limits or inadequacy of enabling factors. We know that "small sample size" has several disadvantages. At onset, there is variability or wide standard deviation (numerous pieces to the puzzle) in practices and processes. The consequence is less accurate or unsatisfactory outcomes. Bias arising from "small sample size" could also explain why satisfactory outcomes may not be achieved. "Selection bias" or selecting the wrong pieces to the puzzle can result in mismatch of game players or event processes. Moreover, selection bias includes volunteer bias and non-respondent bias that singularly or together could hinder solving the jigsaw puzzle. Measurement and intervention bias seem to be

less important in determining the success of puzzle solving. However, the presence of "small sample size" confounds this, increasing the error of prediction of success. Finally, what is production without resources (material, psychosomatic and investment) or an enabling environment? What are the solutions? Increase the sample size, innovate, streamline process, invest, and improve the enabling environment" (**Christopher K Opio**).

A fruitful mentorship experience is one that has been able to shape career and other aspects.

"My mentors and I have worked together to discover and develop my abilities. As a result there is now a strong long term relationship that has been established with the main aim of providing me with the support, knowledge and drive that can facilitate my professional success, in this case, completing my PhD programme and progressing to become an independent researcher. My mentors have acted as teachers, counsellors, moral supporters and role models to me. In addition, they have provided me with guidance in what I do and some have found funding/scholarships opportunities which otherwise I may not have obtained on my own. With this kind of mentorship, I am confident that I will be able to realize my dreams. Furthermore, not only have my mentors taken on career/academic related roles but they have also been very supportive in other aspects I consider important in my life including psychosocial, health, family as well as economic aspects through guidance and support. One of my mentors has been very crucial in providing me with pathways for professional networking which has provided me with opportunities for both academic and research collaborations. **How I have benefited?** Mentorship has increased my interest in the academic career, has promoted my career development and has

improved my efficiency in research and professional practice. Having mentors has provided me with more favorable outcomes in terms of training and research satisfaction. Having mentors has enabled me to speed up my PhD program, otherwise, without them, I would have learnt less and even more slowly or not at all. **Some problems encountered:** Selection of mentors was a big challenge. Some individuals lack commitment towards mentoring and those who are committed have had to mentor a large number of candidates. This has resulted into inadequacy in the mentoring process. Lack of diversity was a big problem too. There was also lack of planning of the mentoring process. Many mentors were unaware of what was expected of them. Majority took up roles of supervisors but not as mentors. Sometimes there is lack of openness; whereby negative feedback on either side (mentor or mentee) is not taken well" (**Nakiyingi, L**)

"For the five weeks they were like a dangerous substitute" – a sneak peek into the findings from the MESAU COBERS evaluation study

By the MESAU COBERS Evaluation Qualitative Team

Do undergraduate health professions students add value at the health facilities where they are placed for community-based education (CBE)? Does CBE have a positive effect on the communities? Is CBE relevant – to communities, to students, to health facilities? These are some of the questions MESAU set out to answer with the evaluation of community-based education, research and service (COBERS) – the MESAU version of CBE. Planning for the study started in the third quarter of 2011; baseline data collection was carried



"For the five weeks they were like a dangerous substitute"

out from June 2012 to March 2013 and data analysis is on-going. The evaluation uses a mixed-methods approach; qualitative data has been collected from community members, health facility staff and students using key informant interviews, focus group discussions and in-depth interviews.

In the spirit of MESAU, qualitative data analysis has used a consortium approach. A data extraction matrix was developed and used to facilitate the teams of the different institutions to familiarise themselves with the data as the first step in data analysis. Thereafter, the whole team met together at MakCHS to share their preliminary findings and compile a MESAU-wide preliminary debriefing report. The team then developed a detailed data analysis plan in preparation for in-depth data analysis. Because capacity-building is at the heart of MESAU, training of faculty and PhD students in the application of Atlas Ti software was integrated into analysis of the data at a recently-concluded training/data analysis workshop at MUST.

The findings emerging have made an impression on the team. As Prof Anne Katahoire, Child Health and Development Centre, MakCHS observes, "It is often assumed that when undergraduate students go to COBERS sites they only go there to learn. Findings from all the sites however reveal different ways in which students make valuable contributions to health services delivery including making the users feel welcome and cared for". This has implications for health service delivery in resource constrained settings. Dr Lyn Atuyambe, MakCHS School of Public Health notes, "I think what appears to be emerging is that COBERS contributes immensely to public health activities in the community". Ms Christine Acio of the Faculty of Health Sciences at Gulu Constituent College, Lira adds that, "The various sources of data indicate that the demand and utilization of

health services increased during COBERS. This was attributed to the caring attitude that the students demonstrated while at the health facility and health education that inspired the community members to seek health care".

In football (aka soccer), a game Uganda is very passionate about, a substitute is brought into the game to replace a current player. Substitutions are made when the player being replaced is tired or injured, or is not performing. There may also be tactical reasons such as exchanging a defender for a striker when goals are needed. A "dangerous substitute" is one who performs beyond expectations; one who perhaps should not have been on the bench in the first place. Our students have been described as "dangerous substitutes" during their COBERS placements:

"I do not think it has had a negative effect; in fact it promoted the functioning of the health facility, because here we really have acute shortage of staff, so when you bring in like eight people at one single time and for them they were willing to come in when asked, by the time you ask for help he is already there so it made the functioning of the hospital move smoothly, it never interfered in any way it was actually a good thing for us. Work was done faster and efficiently... They also substituted some members here like in the OPD where there are no enough staff to do health education these people were in doing it. At one point in the ART there was no body to weigh, retrieve the file, in other words for the five weeks they were like a dangerous substitute" (Health facility staff KII)

Given their positive contribution to service delivery, the general feedback received from both the community and health facility respondents was that students' presence at the health facility and in the community made a difference

and therefore the students were always welcome.

"The service was improved. Generally work in the hospital was much better and even the nurses were crying for them when they were leaving, that, 'you people, you are now going back and you are going to leave us with a very big gap and work will be a lot for us now. At least when you were with us work was going very fast and you did a lot'. Like, you know, here we have only one doctor. So they gave morale to our only doctor here and he was even happy. When those people went back the doctor was not happy." (Opinion Leader KII)

The assumption that the major outcome of CBE is student learning means that student contributions to health service delivery have long gone unrecognised. The team feels that this evaluation will contribute significantly to acknowledging and crediting students for their contributions to health service delivery. Dr Wilfred Arubaku of MUST brings the different facets together in his observation that "with the COBERS evaluation we are able to show the many possibilities that exist within COBERS to enhance student teaching and learning as well as service to the communities. COBERS acts as a platform to link the Universities to the people at the community level and as such make services more available. The results will contribute to an understanding of our communities in a way we have never been able to appreciate before the evaluation". We conclude with Dr Kintu Mugagga who reflects on the need to garner support for CBE, "The COBERS evaluation findings highlight the need to set a foundation [a bargaining ground] over which a strong alliance will be established to attract attention and networks with other key stakeholders like: MoH, MoES, Local governments and NGOs to support the sustainable implementation of COBERS".

Capacity Building of Academic Staff (faculty): An Essential Component of MESAU activities

Understaffing is a well-recognized barrier to expansion in depth and breadth of medical education in Uganda as is the case in other sub-Saharan African countries. MESAU has put emphasis on building capacity of teaching staff through PhD and master's degree level training as well as faculty mentored research.

Below are tables with lists of academic staff undertaking doctoral and masters training and those doing faculty-mentored research with MEPI support:

MESAU PhD Fellows

No	Names	University	Sex	Title
1	Odong Charles Okot	Gulu University	M	Molecular, pharmacokinetic and pharmacodynamic studies to evaluate the effectiveness of intermittent preventive treatment for falciparum malaria in pregnancy
2	Sarah Nakubulwa	Mak	F	Herpes Simplex Virus type 2 in pregnancy
3	Lydia Nakiyingi	Mak	F	Mycobacteremia in HIV-infected patients
4	Anthony Ocaya	Gulu University	M	Buruli ulcer and Mycobacterium ulcerans in selected villages of Adjumani and Moyo Districts, West Nile, Uganda
5	David Kitara Lagoro	Gulu University	M	Investigations of the link between Pyomyositis, HIV and malnutrition
6	Kenneth Opio	Mak		Schistosomiasis, anemia, varices, and erythropoietin
7	Othman Kakaire	Mak	M	Contraception among persons living with HIV/AIDS.
8	Ssembajjwe Fred	Mak	M	Genome Status in Sickle Cell Disease Patients at Mulago Hospital
9	Ocan Moses	Mak	M	Impact of self medication on ugandan healthcare system: a case study of drug use practices in rural communities
10	Nalugo Scovia Mbalinda	Mak	F	Utilizatioin of assessment information about rural HIV positive young adult's sexuality
11	James Kayima	Mak	M	Hypertension control in Uganda: epidemiology, genetics and clinical attributes
12	Jane Nakibuuka	Mak	F	Improving stroke prevention and outcomes in Uganda: Population based survey in urban and rural Wakiso and hospital based study at Mulago hospital
13	Emmy Okello	Mak	M	Pathogenesis and Progression of Rheumatic Heart Disease in Ugandan Patients

MESAU Masters Fellows 2012

	Name of Applicant	Institution	Sex	Programme
1	Richard Maseruka	KIU	M	MSc. Biochemistry
2	Julius Tibyange	KIU	M	MSc Microbiology
3	Dr. Kyobe Samuel	MakCHS	M	MSc Medical Microbiology
4	Dr. Ibanda Hood Ahmed	MakCHS	M	MSc Pharmacology
5	Dr. Nfambi Joshua	MakCHS	M	MSc. Physiology
6	Dr. Wayengera Misaki	MakCHS	M	MSc. Immunology and Clinical Microbiology
7	Samuel Kiroha Tweheyo	MakCHS	M	MSC Family Medicine
8	Bacwa Kepher	MakCHS	M	M.MED Family Medicine
9	Osbert Twikirize	MUST	M	MSc. Physiology
10	Lucas Ampaire	MUST	M	MSc Medical Laboratory Sciences
11	Yona Mbalibulha	MUST	M	MSc Medical Laboratory Sciences
12	Madina Nagayi	MUST	F	MSc. Physiology
13	James Kiguli Mukasa	MUST	M	MSc Microbiology

MESAU Masters Fellows 2013

	Name	Institution	Sex	Program
1	Kabatooro Angella	MakCHS	F	Family Medicine
2	Dr. Misinde Ronald	MakCHS	M	Family Medicine
3	Tamale Henry	MakCHS	M	MSc Physiology
4	Imanirampa Lawrence	MUST	M	MSc Pharmacology
5	Nantongo Hanifah	MUST	F	MSc Pharmacology
6	Okongo Benson	MUST	M	MSc Medical Laboratory Sciences
7	Orikiriza Patrick	MUST	M	MSc Microbiology
8	Twinomujuni Silvano Samba	MUST	M	MSc Pharmacology
9	Mpaka Peter	KIU	M	MSc Medical Laboratory Sciences
10	Nabirumbi Ritah	KIU	M	MSc Pharmacology
11	Oola Stephen Kidega	MakCHS	M	MSc. Biochemistry
12	Kiggundu Reben	MakCHS	M	MSc Physiology
13	Catherine Mwesigwa	MakCHS	F	MSc. Anatomy
14	Nabatanzi Rose	MakCHS	F	MSc. Immunology & Clinical Microbiology
15	Atwebembeire Jeninah	MUST	F	MSc. Microbiology
16	Taremwa Ivan	MUST	M	MSc Medical Laboratory Sciences
17	Oyet Ceaser	MUST	M	MSc. Medical Laboratory Sciences
18	Obakiro Samuel Baker	KIU	M	MSc. Pharmacology
19	Doreck Nuwasiima	Busitema University		MSc. Immunology & Clinical Microbiology



Capacity Building of Academic Staff (faculty): An Essential Component of MESAU activities

MESAU Faculty Mentored Research Projects 2012

No	Name of Investigator	Institution	Sex	Title of Research proposal
1.	Dr. Joseph Ochieng	MakCHS	M	Perceptions, Appropriateness and Understanding of Informed Consent Process For Surgical Health Care In Uganda
2.	Achan Beatrice	MakCHS	F	Determination of Fluconazole Resistance in Cryptococcus Neoformans Isolates from HIV-Infected Patients in Uganda
3.	Dr. Mwaka Erisa Sebakaki	MakCHS	M	Statistical Knowledge, Skills and Attitudes of Students and Faculty in Health Professional Training Institutions of Uganda
4.	Lynn Atuyambe	MakCHS	M	Improving sexual and reproductive health among adolescents in Uganda: Formative evaluation of adolescent friendly services (AFS) in Wakiso district, Uganda
5.	Dr. Jane Namatovu	MakCHS	F	Community Involvement in Health Services in Gulu and Wakiso District- A Case study
6.	Dr. Arthur Kwizera	MakCHS	M	Incidence and Factors Associated With ICU Delirium in Two Ugandan Hospitals
7.	Dr. L.M Muwazi	MakCHS	M	An epidemiological study of periodontal conditions among postpartum mothers and their association to low birth weight and preterm birth at two national referral hospitals in Uganda
8.	Rose Chalo Nabirye	MakCHS	F	Improving Quality of Nursing and Midwifery Care in Ugandan Hospitals: Nurses' and Midwives' Perceptions
9.	Paul Alele	MakCHS	M	Neurotoxic, Hematologic and Metabolic Outcomes of Subchronic Khat (Catha Edulis) and Ethanol in a Rat Model
10.	Joel Bazira	MUST	M	Surveillance of Antimicrobial resistance at Mbarara Regional Referral Hospital in Mbarara South Western Uganda
11.	Wilfred Arubaku	MUST	M	Periodontitis in diabetes: prevalence and association with glycaemic control
12.	Prof. Amon Ganafa Agaba	MUST	M	Evaluation of the Efficacy and Safety of Four (4) Commonly Used Herbs for the Treatment of Erectile Dysfunction in Western Uganda
13.	Ogah Adenike Oluwaemi	MUST	M	Developing OSCE Guidelines for Implementation in Kampala International University Teaching Hospital
14.	Prof. Peter Hermit Sebuwufu	KIU	M	Fabrication of Non-Human Study Models for Improved Facilitation and Deeper Understanding of the Human Anatomy Discipline
15.	Nansunga Miriam	KIU	F	Evaluation of the effectiveness of priva adherences extract in diarrhoeal management in a rat.
16.	Christine Acio		F	Strengthening the role of Village Health Teams in the training of health professional in COBERS; an intervention study
17.	Ronald Wanyama	KIU	M	Vitamin A and Zinc Status in Newly Diagnosed HIV – Infected Adults in Gulu Regional Referral Hospital, Northern Uganda

MESAU Faculty Mentored Research Projects 2013

No	Name of Investigator	Institution	Sex	Title of Research proposal
1.	Dr. Josephine Kasolo	MakCHS	F	T-Regulatory Cells In Household Contacts Exposed To Pulmonary Mycobacterium Tuberculosis Infection In Kampala District
2.	Dr. Eriab Moses Nkamba	MakCHS	M	Evaluation of the Usage of e-Learning in Delivering Medical Education at Makerere and Mbarara Universities
3.	Elialilia S. Okello	MakCHS	F	Sustaining Community Based Education Research And Services: An Assessment of District Willingness to Support COBERS
4.	Oloro Joseph	MUST	M	To Evaluate the Antiretroviral Activity of Ppoj5 and Adoj6 on Selected Current Strains of HIV1
5.	Claude Kirimuhuza	KIU	M	In Vitro Efficacy on Rifampicin-Resistant Tuberculosis and Chronic Toxicity of Compounds Isolated from the Leaves of Lantana Camara Linn".
6.	Obol James Henry	GU	M	Mapping Distances in Accessing Healthcare Services and Common health Problems Reported at COBERS Sites by Communities
7.	Catherine Mwesigwa	Mak	M	Assessment Of Medical Competencies Within A Consortium: The Ugandan Case Study
8.	Dickens Akena	Mak	M	The Burden of Depression and its Socio-Economic Impact Among patients with Diabetes Melitus.
9.	Ponsiano Ocama	Mak	M	Severity of liver disease caused by Schistosoma mansoni among HIV infected patients attending Pakwach Health Centre, Nebbi District, Northern Uganda
10.	Nassaka Susan	Mak	F	Internationalization and Health Professionals' Education: An assessment of the MESAU consortium
11.	Edith Wakida	MUST	F	Students' Voices In Community Based Education: A Case of MESAU Institutions' Health Professionals' Students' Teaching and Learning Expectations
12.	Godfrey Zari Rukundo	MUST	M	Exploring the Role of Graduate Students as Educators in Ugandan Medical Schools
13.	Geofrey Tabo-Olok	Gulu	F	Knowledge and Attitudes of Doctors towards e-Health as Solution to Healthcare Delivery in Government and Private Hospitals in Northern Uganda